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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,268	11/13/2001	James M. Kates	22645-7085	2619

7590 03/20/2006

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EXAMINER
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NI, SUHAN

ART UNIT	PAPER NUMBER
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2646

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/008,268	<b>Applicant(s)</b> KATES, JAMES M.	
	<b>Examiner</b> Suhan Ni	<b>Art Unit</b> 2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 30-66 is/are pending in the application.
- 4a) Of the above claim(s) 45-58 and 63-66 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-40 and 60-62 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 41-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This communication is responsive to the amendment filed 12/30/2005.
2. Newly submitted claims 45-59 and 63-66 directed to an invention that is independent or distinct from the invention **originally** claimed for the following reasons: the newly claimed limitations are not presented in the originally filed claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 45-59 and 63-66 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Schaub et al. (U. S. Pat. - 6,370,255).

Regarding claim 1, Schaub et al. disclose a digital hearing aid, comprising: an input signal channel having a microphone (1) and providing digital input signals (2), a signal path adapted to process said digital input signals in accordance with a hearing impairment correction signal processing algorithm (11-13) to produce a digital output signal (8), wherein said signal path further comprises at least one signal processing function (12) operating on a warped

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frequency scale; and an output conversion means adapted to convert said output signals to an audio output (10) as claimed.

Regarding claim 2, Schaub et al. further disclose the hearing aid, wherein said at least one signal processing function further comprises a plurality of cascaded all-pass filters (11).

Regarding claim 3, Schaub et al. further disclose the hearing aid, wherein said warped frequency scale approximates a Bark scale (col. 5, lines 24-28) as claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaub et al. (U. S. Pat. - 6,370,255).

Regarding claims 41-44, Schaub et al. do not specially teach the type of hearing device as claimed. Since to customize or minimize a hearing device to fit or satisfy different users is well known in the art, it therefore would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to configure the hearing device to a suitable hearing aid, such as BTE type as an alternate choice, in order to optimally provide the hearing device for different users.

### ***Allowable Subject Matter***

5. Claims 30-40 and 60-62 are allowed.

*Response to Amendment*

6. Applicant's arguments dated 12/30/2005 have been fully considered, but they are not deemed to be persuasive.

The cited reference (US - 6,370,255) does clearly show a digital hearing aid, comprising: an input signal channel having a microphone (1) and providing digital input signals (2), a signal path adapted to process said digital input signals in accordance with a hearing impairment correction signal processing algorithm (11-13) to produce a digital output signal (8), wherein said signal path further comprises at least one signal processing function (12) operating on a warped frequency scale; and an output conversion means adapted to convert said output signals to an audio output (10) as claimed.

Regarding the argument made by the applicant on page 11 about digital input signal, the examiner respectfully disagrees with the applicant. The disclosed hearing aid comprises digital processing elements, such as a digital filter and controller. Therefore, digital input signal is inherently provided for the processing elements to process the signals.

Regarding claims 41-44, the applicants argue no motivation to combine the references. It is not necessary that the references actually suggest, expressly or in so many words the changes or improvements that applicants have made. The test for combining references is what the references as whole would have suggested to one of ordinary skilled in the art. **In re Sheckler, 168 USPQ 716 (CCPA 1971); In re Mlaughlin 170 USPQ 209 (CCPA 1971); In re Young 159 USPQ 715 (CCPA 1968).**

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

8. Any response to this final action should be mailed to:

**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(571)-272-7505**, and the number for fax machine is **(571)-273-7505**. The examiner can normally be reached on Monday through Thursday from 10:00 am to 8:00 pm. If it is necessary, the examiner's supervisor, **Sinh N. Tran**, can be reached at **(571)-272-7564**.

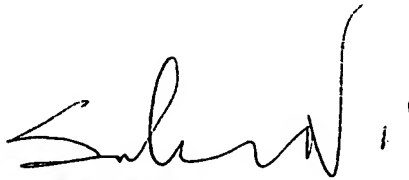
10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600, or please see <http://www.uspto.gov/web/info/2600>.

March 14, 2006



**SUHAN NI**  
**PRIMARY EXAMINER**